

Attachment 4.1 – Supporting Documents

Budget

Madera Region – IRWM Implementation Grant Application

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**Attachment 4.1, Summary Budget Commentary and DWR Economic
Analysis Table 8**

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Attachment 4.1 - Budget

Table 8 Narrative

The Madera Region is requesting total grant funds in the amount of \$9,412,147 for four projects plus grant administration. The projects include \$4,618,517 in matching funds and \$1,800 in other state funds, for a total combined project amount of \$14,032,464. Individual projects have matching percentages ranging from 25% to 51%. The overall application match is 33%.

DWR Economic Table 7 and a detailed Project specific budget is included with each Project summary.

The Applicant and the Project Proponents recognize that DWR may not have sufficient funds to cover the complete budgets of all of the projects submitted. These projects are submitted at a scale which will have the maximum benefits within the available funding constraints. However each of them can be scaled back to reduce costs if necessary, as follows:

- The Arundo Eradication and Sediment Removal projects need to take place over a three year period in order to effectively eradicate the Arundo. However, the location of the Arundo eradication efforts can be scaled down to reduce costs. The result will not be as beneficial for flood control and downstream Arundo infestation prevention, but there will still be positive benefits in the areas of flood hazard reduction and habitat restoration.
- The Forest Service Fuel Reduction project sites can also be scaled down, focusing on the most strategic and beneficial sites for ecosystem protection and reduction of flood hazards due to severe wildfire events. Some areas of the watershed may still be at risk, but there would still be substantial positive impacts.
- The Root Creek In-Lieu Groundwater recharge project is not able to be scaled since scaling the construction removes the benefit of the project. However, RCWD can accept less funding and higher match to complete the project as planned, provided the reduction in funding is reasonably limited.

If circumstances make it necessary, the Applicant and the Project Proponents will meet with DWR staff to produce a revised scope of work and budget.

Table 8 - Summary Budget**Proposal Title: Madera Region IRWM Implementation Grant**

Individual Project Title		Non-State Share (Funding Match)	Requested Grant Funding (DWR Grant Amount)	Other State Funds Being Used	Total	% Funding Match
(a)	Project A	\$0	\$331,700	\$0	\$331,700	
(b)	Project B	\$976,702	\$1,653,855	\$1,800	\$2,632,357	37%
(c)	Project C	\$719,120	\$1,789,024	\$0	\$2,508,144	29%
(d)	Project D	\$1,375,000	\$4,125,000	\$0	\$5,500,000	25%
(e)	Project E	\$1,547,695	\$1,512,568	\$0	\$3,060,263	51%
(i)	Grand	\$4,618,517	\$9,412,147	\$1,800	\$14,032,464	33%

Attachment 4.1, Project A – Grant Administration

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Attachment 4.1, Project A – Grant Administration

Budget Notes

The budget items are explained in the budget spreadsheet. For a more detailed justification of tasks, see Attachment 3.1, page 15 – Scope of Work for Grant Administration.

Table 7 - Project Budget

Proposal Title: Madera Region IRWM Implementation Grant

Project Title: Project A - Grant Administration

		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs		\$331,700		\$331,700	0%
(b)	Land Purchase/Easement				\$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation				\$0	0%
(d)	Construction/Implementation				\$0	0%
(e)	Environmental Compliance/ Mitigation/Enhancement				\$0	0%
(f)	Construction Administration				\$0	0%
(g)	Other Costs				\$0	0%
(h)	Construction/Implementation Contingency				\$0	0%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$0	\$331,700	\$0	\$331,700	0%

*List sources of funding: Use as much space as required.

Madera Integrated Regional Water Management Group
Implementation Grant Application
Overall Grant Administration Costs



TASK	No. Items	Principal Engineer \$160	Senior Engineer \$130	EIT Engineer \$90	Admin \$60	Sec/Treas \$80	Mileage \$0.51	Expenses Copies (\$)	Total Hours	Subtotal	Inflation (10%)	Conting. (15%)	Total Fee (rounded)
1 Project Administration		400	190	60	20	0	1,200	150	670	\$96,056	\$9,606	\$15,849	\$121,500
1.1 Administer Contract	1 Contract	20			20			50	40	\$4,450			
1.2 Bi-weekly Phone Conversations with DWR	130 Phone Calls	260	130						390	\$58,500			
1.3 Bi-monthly Project Meetings	60 Meetings	120	60	60			1,200	100	240	\$33,106			
2 Project Accounting		0	0	160	0	900	0	200	1,060	\$86,600	\$8,660	\$14,289	\$109,500
2.1 Establish Accounting System for Each Project	4 Projects					60		100	60	\$4,900			
2.2 Track Project Expenditures	60 Months					480		100	480	\$38,500			
2.3 Review and Submit Pay Requests to State	20 Pay Requests			160		160			320	\$27,200			
2.4 Disburse Funds to Project Participants	20 Pay Requests					200			200	\$16,000			
3 Labor Compliance Plans	4 Projects	0	0	24	0	0	0	100	24	\$2,260	\$226	\$373	\$2,900
4 Reporting		20	190	270	300	0	1,000	2,200	780	\$72,905	\$7,291	\$12,029	\$92,200
4.1 Quarterly Progress Reports	20 Progress Reports		80	80	160			1,000	320	\$28,200			
4.2 Annual Progress Reports	5 Annual Reports		50	50	100			500	200	\$17,500			
4.3 Final Project Reports	1 Final Report	20	20	20	40			200	100	\$10,200			
4.4 Data Management and Monitoring Reports	4 Projects			80				400	80	\$7,600			
4.5 Field Review Visits	8 Site Visits		40	40			1,000	100	80	\$9,405			
5 Development of Financing		0	0	40	0	10	0	0	50	\$4,400	\$440	\$726	\$5,600
Total units		420	380	554	320	910	2,200	2,650	5,094				
Total \$		\$67,200	\$49,400	\$49,860	\$19,200	\$72,800	\$1,111	\$2,650		\$262,221	\$26,222	\$43,266	\$331,700

Notes:

- 1) Cost estimate assumes that total contract duration is five years
- 2) Inflationary adjustment assumes average salaries over the five year period are ten percent higher than current salaries.
- 3) Overall Grant Administration will be performed by the Applicant, Root Creek Water District, and their engineering consultant.

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**Attachment 4.1, Project B – Ash Slough Arundo Eradication and Sand
Removal**

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Attachment 4.1 – Project B – Ash Slough Arundo Eradication and Sand Removal

Budget Notes

Assumption – if DWR makes awards in June, 2011, this project can begin implementation immediately. In that case, it can be completed within a 36 month period. That includes three years of treatment and subsequent monitoring.

NOTE – All Invoices will be billed by Task, not by Sub-Task.

Task 1.1 – Invoice preparation and documentation is estimated to take an average of 10 hours a month for the 44 month period of the project. The hourly rate is based on County staff that performed this function for previous DWR grants. This is a fully-loaded rate, including salary, benefits, rent and equipment and personnel administration.

Task 2.1 – Labor compliance plan creation and submission to DWR is estimated to take 20 hours. Thereafter it is estimated to take 20 hours per year to maintain labor information as required by the plan (total of 80 hours over four years).

Task 3 – Quarterly reports are estimated to take 10 hours each. There will be 14 quarterly reports due during the period of the project. Annual reports are estimated to take 10 hours per year for four years (they will be more comprehensive but the information for the quarterly reports will already be compiled). The Final report is estimated to take 20 hours, figuring in requests for clarification from DWR. Quarterly meetings are expected to take 4 hours per meeting for 14 meetings. These tasks will be completed by the project manager – an engineer, who has a fully-loaded hourly rate of \$86.70.

Task 8.1 – This project will be except from CEQA under Section 8. A Notice of Exemption will be prepared and filed. Estimated time for this is 3 hours.

Task 9.1 – The application for renewal of a 1602 permit is a relatively simple form which is estimated to take 10 hours to complete.

Task 9.2 – Completing the applications for the 401 and 404 permits requires substantial work and specialized knowledge. The estimate from the local ecological consulting firm used by the County (Live Oak consultants) for this task was \$8,000. (see Attachment 4.2, page 9)

Task 9.3.1 and 9.3.2 – In order to assure compliance with the 401 and 404 permits, a sub-permit or sub-agreement will be created for landowner removing sand requiring them to comply with the permits terms and conditions. This task is estimated to require 8 hours. Responding to agency review of this document will require an additional estimated 6 hours.

Task 9.3.3 Obtain signed Sub-permits/Agreements from landowners, involves drafting a notice and sending it to the adjacent landowner list, which is estimated at 4 hours.

Task 9.3.4 - Interested landowners will be invited to a meeting discussing the terms and conditions of the sand removal. Preparing for, attending and following up from this meeting and obtaining the signed sub-permits will require an estimated 12 hours.

9.4 – Drafting the SWPPP for the SWQCB - This is a specialized task that will be contracted out. Estimated fees from Live Oak Consultants for this work are \$5,000 for the initial plan and \$4,000 over the life of the project for amendments. (see Attachment 4.2, page 9)

9.5 – Draft Dust Control Plan for Air Quality District – This is estimated to require 4 hours.

Task 10.1.1 – Drafting the contract for Chowchilla Water District to implement the Arundo eradication work will be done by the County Counsel. Fully loaded rate for appropriate staff is \$110 per hour. It is estimated that it will take 8 hours to complete this task.

Task 10.1.2 - Approval of the contract requires the project manager to attend meetings of the Madera County Board of Supervisors and the Chowchilla Water District to answer questions and explain the project. This is estimated to require 8 hours.

Task 11.1.1 – According to bids provided by Chowchilla Water District, the costs for mulching one mile of slough is \$15,370.56. (see Attachment 4.2, page 3). Total costs for 5 miles of slough is \$ 76,853. Since this has to be done for the three year period of Arundo eradication (with the exception of the half mile area B which will need it only for 2 years – this half mile deduction = $\$15,370.56/2$, or \$7685), the total cost is \$222,873 ($76,853 * 3 = \$230,559 - \$7,685 = \$222,873$).

Task 11.1.2.1 – Arundo spraying costs depend on the year of treatment. For Years 1 & 2, the estimated per-mile cost from Chowchilla Water District is \$27,795.27. (see Attachment 4.2, page 3). For year 3, it is \$13,903.02 because of the decrease in herbicide needed to cover the sparse Arundo growth. The following treatments will be needed:

Year 1	Year 2	Year 3	Total
Stretch A – 4.5 miles @ \$27,795.27/mile = \$125,079	Stretch A – 4.5 miles @ \$27,795.27/mile = \$125,079	Stretch A – 4.5 miles @ \$13,903.02/mile = 62,564	\$312,733
Stretch B - .5 miles @ \$27,795.27/mile = \$13,898	Stretch B – .5 miles @ \$13,903.02/mile = \$6,952	None	\$20,850
Grant Total			\$333,583

Task 11.1.2.2 – Hand cutting and/or hand spraying around sensitive vegetation will be needed all years of the project as required by the 1602 permit. Chowchilla Water District has bid the per-mile cost for this work at \$8,674 per mile. (See Attachment 4.2, page 3). For years one and two this work will be needed for all 5 miles of the slough - $\$8674 * 5 = \$43,370$. For year

three this will be needed for 4.5 miles = \$39,033. Total costs for this work will therefore be \$125,773.

Task 11.1.3 – This is the same as task 11.1.1.

Task 11.2.1 – Services for this task (outreach to adjacent landowners regarding the Arundo eradication effort) will be done by the watershed coordinator working with the Chowchilla/Red Top Resource Conservation District. This position is funded by a State grant, so the amount is not counted as matching funds. The watershed coordinator has been working to support Arundo Eradication efforts in the District and has a contact list of adjacent landowners for notification. The costs of \$600/year are based on a similar notification project done recently for another agency. In addition, \$200/year is estimated for printing and postage, which is being charged to the grant request. (see Attachment 4.2, page 19)

Task 12.2.2 – Sand removal will be done by local landowners (mostly farmers who have already indicated a willingness to remove sand from the slough at their own cost if it becomes available (see Attachment 4.2, page 23). This provides the match to the project. The value of such sand removal is \$5.00 per ton or \$3.34 per cubic yard. This is a generally accepted figure for sand removal costs, and is confirmed in the letter from the Chowchilla Water District (See Attachment 4.2, page 23).

Task 13.1.1 – The Arundo spraying contract will be overseen by the project manager. This will include meetings with the contractor prior to work commencing, site visits to assure that proper techniques are being used, and a final inspection. Because of the Distance from County offices, each meeting takes 4 hours. Site visits take one day, or 8 hours. The County will perform three site visits during each of the three phases of the process (pre-mulch, spray and post-mulch). This is approximately one site visit for every two weeks of work. 12 site visits @ 8 hours = 96 hours plus 8 hours for meetings = 104 hours per year. Total estimated for three years is 312 hours.

Task 13.1.2 – The sediment removal process will require oversight to ensure that landowners who are removing sand are taking the proper amounts in the proper places and are observing the terms and conditions of their subcontracts. The total number of inspections per year is expected to be 24, which is about one inspection per week of sand removal activity. Site inspections are estimated to take 5 hours (including travel and reporting). This equals 120 hours per year, or 360 hours over the life of the project.

Task 13.2 – Data collection and monitoring oversight will include overseeing the activities of monitoring and inspections for the SWPPP, the 401/404 permits and the 1602 permit, as well as the monitoring of Arundo eradication effectiveness (kill rate on Arundo). This will involve pre- and post- meetings with the monitors/inspectors, as well as preparation for these meetings and site inspections when appropriate. It is expected that this will take 30 hours per year, or a total of 90 hours.

Permit fee, Department of Fish and Game 1602 permit extension– The fee for the 1602 permit renewal is \$224 according to the DFG website and discussions with DFG staff. There is also a per-year, per-project fee of \$112. The budgeted amount includes the extension fee and one project yearly fee for 3 years.

14.1 – Surveys and monitoring required by DFG 1602 permit – A local ecological consulting firm has estimated the costs of surveying and monitoring at \$30,000 per year. This covers reviews, coordination, pre-construction surveys, map preparation, coordination with CDFG, endangered species training, monitoring mulching activities during bird nesting season and preparing a report. (see Attachment 4.2, page 9) The monitoring estimates are moderate – only 9 days of monitoring are included when the actual work will take place over a 5 week period. If additional monitoring is required it can be covered under the Contingency budget category. The surveys and monitoring will be required each of the three years, which brings the total to \$90,000.

Permit fee for SWPPP – The fee for the initial SWPPP is \$2200. There is also a per-year fee of \$1100. Since sand removal will most likely take place over a three year period, total fees will be \$5,500.

14.2 – Monitoring and inspection for SWPPP – An annual report on the SWPPP is required each September, and a final report/notice of termination is required at the end of the project. Local consulting firms have estimated these costs as \$500 per annual report and \$1,000 for the final report. Three annual reports plus a final report equals total costs of \$2,500.

Permit fees – 401/404 permits – This permit is required for the removal of sand from the slough channel. The fee for the RWQCB 401 permit is \$2,572 per acre of area disturbed with a maximum of \$40,000 per year. The acreage involved in this project would require the maximum fee of \$40,000/year for 3 years. There is no fee for the ACE 404 permit. (see Attachment 4.2, page 9).

14.3 – Monitoring and inspection of the 401/404 permits – Live Oak Associates provided an estimate for monitoring construction activities and avoidance areas as required by the 401 and 404 permits. Typically they budget a minimum of one site visit per week of construction and add time for the various reports. They suggested we budget \$1,000 per week for monitoring and an additional \$6,000 for report writing. Because this would be extremely expensive and because the ‘construction activities’ are relatively benign, we are budgeting \$1,000 per month of sand removal activities, or \$6,000 for inspections and \$6,000 for reports each year. (see Attachment 4.2, page 3)

14.4.1 - Monitoring and Report on the kill rate on Arundo – The monitoring for the effectiveness of the Arundo eradication efforts will be done by the local office of the Natural Resources Conservation Service with assistance from the Coarsegold – Red Top Resource Conservation District. These two entities are strong supporters of Arundo eradication and have

spearheaded the Arundo education information/education efforts in the region. These entities estimate that the monitoring and reporting will require 536 hours over the three years of the project. (see Attachment 4.2, page 15)

14.1.2 - Report on cubic yards/tons of sediment removed – This report will be created by the project manager based on the grading/sand removal permits issued and will require an estimated 20 hours to complete.

14.2.3 – Report on channel capacity - This report will involve a survey of the 5 mile target area and report drafting. The survey will require two engineers for 4 days, or 64 hours, and the report drafting will require another 12 hours.

Contingency – A 15% contingency has been selected. Factors in this selection include the potential rise in price of herbicide chemicals, and labor costs over the 3-4 year period of the project. An additional unknown factor is the amount of monitoring that may be required by permits which have not already been secured. Monitoring and reporting costs for these permits can easily exceed \$40,000 per year.

Table 7 - Project Budget

Proposal Title: Madera Region IRWM Implementation Grant

Project Title: Project B - Ash Slough Arundo Eradication and Sand Removal

		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs		\$43,440		\$43,440	0%
(b)	Land Purchase/Easement				\$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation		\$260		\$260	0%
(d)	Construction/Implementation	\$976,702	\$927,744	\$1,800	\$1,906,246	51%
(e)	Environmental Compliance/ Mitigation/Enhancement				\$0	0%
(f)	Construction Administration		\$66,065		\$66,065	0%
(g)	Other Costs		\$271,233		\$271,233	0%
(h)	Construction/Implementation Contingency		\$345,113		\$345,113	0%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$976,702	\$1,653,855	\$1,800	\$2,632,357	37%

*List sources of funding: Use as much space as required.

Funding Match: \$976,702 from in-kind removal of sand from sloughs

\$1800 from Chowchilla/Red Top RCD from State-funded grant

Detailed Project Budget

Proposal Title: Madera Region IRWM Implementation Projects
Project Title: Project B - Ash Slough Arundo Eradication and Sand Removal
Detailed Budget

NOTE – All Invoices will be billed by Task, not by Sub-Task.

Budget Category/Task Number	Unit	Unit #	Cost/Unit	(a) Non-State Share*	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) Task/ Category Subtotals	(f) % Funding Match
(a) Direct Project Administration Costs									
Task 1 - Administration									
1.1 Preparation of invoices to Applicant	hours	440	53.83	\$ -	\$ 23,685	\$ -	\$ 23,685	\$ 23,685	0%
Task 1 - Administration Subtotal									
Task 2 - Labor Compliance Program									
2.1 Submission of County's Labor Compliance program to DWR	hours	100	86.7	\$ -	\$ 8,670	\$ -	\$ 8,670	\$ 8,670	0%
Task 2 - Labor Compliance Program Subtotal									
Task 3 - Reporting									
3.1 Preparation and submission of quarterly project reports to Applicant	hours	140	86.7	\$ -	\$ 12,138	\$ -	\$ 12,138	\$ 12,138	0%
3.2 Preparation and submission of annual project reports to Applicant	hours	40	86.7	\$ -	\$ 3,468	\$ -	\$ 3,468	\$ 3,468	0%
3.3 Preparation and submission of final project report to Applicant	hours	20	86.7	\$ -	\$ 1,734	\$ -	\$ 1,734	\$ 1,734	0%
3.4 Quarterly meeting of project proponents and applicant	hours	56	86.7	\$ -	\$ 4,855	\$ -	\$ 4,855	\$ 4,855	0%
Task 3 - Reporting Subtotal									
4 Development of Financing - Not Applicable								\$ 22,195	
(a) Direct Project Administration Subtotal					\$ 54,550			\$ 54,550	
(b) Land Purchase/Easement									
5 Land Purchase/Easement - not applicable									
(b) Land Purchase/Easement Subtotal									
(c) Planning/Design/Engineering/ Environmental Documentation									
6 Assessment and Evaluation – not applicable									
7 Final Design, Deliverables: – not applicable									
Task 8 Environmental Documentation									
8.1 Preparation and filing of Notice of Exemption	hours	3	\$ 87	\$ -	\$ 260	\$ -	\$ 260	\$ 260	0%
Task 8 Environmental Documentation Subtotal									
(c) Planning/Design/Engineering/Environmental Documentation Subtotal					\$ 260			\$ 260	0%
(d) Implementation									
Task 9 - Permitting									
9.1 Create application for five year renewal of 1602 Permit	hours	10	\$ 87	\$ -	\$ 867	\$ -	\$ 867	\$ 867	0%
9.2 Create application for 401 and 404 permits	contract	1	\$ 8,000	\$ -	\$ 8,000	\$ -	\$ 8,000	\$ 8,000	0%
9.3.1 Draft Landowner Sub-permit/Agreement for sediment removal work	hours	8	\$ 87	\$ -	\$ 694	\$ -	\$ 694	\$ 694	0%
9.3.2 Respond to agency review and comment on Sub-permit/Agreement	hours	6	\$ 87	\$ -	\$ 520	\$ -	\$ 520	\$ 520	0%
9.3.3 Outreach to adjacent landowners	hours	4	\$ 87	\$ -	\$ 348	\$ -	\$ 348	\$ 348	0%
9.3.4 Obtain signed Sub-permits/Agreements from landowners	hours	12	\$ 87	\$ -	\$ 1,044	\$ -	\$ 1,040	\$ 1,040	0%
9.4 Draft Stormwater Pollution Protection Plan (SWPPP) for SWQCB	contract	1	\$ 9,000	\$ -	\$ 9,000	\$ -	\$ 9,000	\$ 9,000	0%
9.5 Draft Dust Control Plan for Air Quality District	hours	4	\$ 87	\$ -	\$ 348	\$ -	\$ 347	\$ 347	0%
Task 9 - Permitting Subtotal								\$ 22,868	

Detailed Budget

Budget Category/Task Number	Unit	Unit #	Cost/Unit	(a) Non-State Share*	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) Task/ Category Subtotals	(f) % Funding Match
Task 10 - Implementation Contracting									
10.1.1 Draft 3-year contract for Arundo removal with CWD	hours	8	\$ 110		\$ 880		\$ 880		0%
10.1.2 Approval of contract by County and CWD	hours	8	\$ 87		\$ 694		\$ 694		0%
Task 10 - Implementation Contracting Subtotal								\$ 1,574	
Task 11 - Implementation									
11.1.1 Pre-spray mulching	contract	1	\$ 222,873		\$ 222,873		\$ 222,873		0%
11.1.2.1 Spray Arundo with herbicide.	contract	1	\$ 333,583		\$ 333,583		\$ 333,583		0%
11.1.2.2 Remove Arundo by cutting and daubing herbicide or hand spray	contract	1	\$ 125,773		\$ 125,773		\$ 125,773		0%
11.1.3 Post-spray mulching	contract	1	\$ 222,873		\$ 222,873		\$ 222,873		0%
11.2.1 Notices to adjacent landowners	years	3	\$ 800		\$ 600	\$ 1,800	\$ 2,400		0%
11.2.2 Sediment removal	Tons	293304	\$ 3	\$ 976,702			\$ 976,702	\$ 1,884,204	100%
Task 11 - Implementation Subtotal								\$ 1,884,204	
(d) Implementation Subtotal					\$ 976,702	\$ 927,744	\$ 1,800	\$ 1,908,646	51%
(e) Environmental Compliance/Mitigation/Enhancement									
Task 12 - Environmental Compliance/Mitigation - not applicable									
(e) Environmental Compliance/Mitigation Subtotal									
(f) Project Management/Administration									
Task 13 - Project Management and Oversight									
13.1.1 Oversight of Arundo spraying and mulching activities	hours	312	\$ 87		\$ 27,050		\$ 27,050		0%
13.1.2 Oversight of Sediment removal	hours	360	\$ 87		\$ 31,212		\$ 31,212		0%
13.2 Data Collection and Monitoring Oversight	hours	90	\$ 87		\$ 7,803		\$ 7,803		0%
Task 13 - Project Management and Oversight Subtotal					\$ -		\$ -	\$ 66,065	0%
(f) Project Management/Administration Subtotal					\$ 66,065			\$ 66,065	0%
(g) Other Costs									
Task 14 - Permits, monitoring and reporting									
Permit fees - DFG 1602 extension and yearly project fees	permit	1	\$ 560		\$ 560		\$ 560		0%
14.1 Surveys and monitoring required by DFG 1602 permit	contract	1	\$ 90,000		\$ 90,000		\$ 90,000		0%
SWPPP permit fees (initial)	project	1	\$ 2,200		\$ 2,200		\$ 2,200		0%
SWPPP permit fees (annual)	years	3	\$ 1,100		\$ 3,300		\$ 3,300		0%
14.2 Monitoring and inspection for SWPPP	contract	1	\$ 2,500		\$ 2,500		\$ 2,500		0%
Permit fees - RWQCB 401	years	3	\$ 40,000		\$ 120,000		\$ 120,000		0%
14.3 Monitoring and inspection for 401/404 permits	contract	1	\$ 36,000		\$ 36,000		\$ 36,000		0%
14.4.1 Monitoring and Report on the kill rate on Arundo	contract	1	\$ 8000		\$ 8,000		\$ 8000		0
14.4.2 Report on cubic yards/tons of sediment removed	hours	20	\$ 87		\$ 1,734		\$ 1,734		0%
14.4.3 Report on channel capacity	hours	76	\$ 87		\$ 6,589		\$ 6,589		0%
Permit fees - Air District (Dust Control Plan)	permit	1	\$ 350		\$ 350		\$ 350		0%
Task 14 - Other Costs Subtotal								\$ 271,233	
(g) Other Costs Subtotal					\$ 271,233			\$ 271,233	
(h) Implementation Contingency									
15% contingency					\$ 345,113		\$ 345,113		0%
(i) Grand Total (Sum rows (a) through (h) for each column)				\$ 976,702	\$ 1,664,966	\$ 1,800	\$ 2,643,468		37%

*List sources of funding: Use as much space as required.

Sand removal - This is in-kind funding from local landowners who will remove sand from the stream channel at their own cost to use on farm roads as a dust deterrent. The cost for sand removal is estimated at \$3.34 per ton (\$5 per cubic yard).

Notice to Adjacent Landowners - Labor done by Chowchilla/Red Top Resource Conservation District (from State-funded grant)

**Attachment 4.1, Project C – Cottonwood, Dry and Berenda Creek Arundo
Eradication and Sand Removal**

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Attachment 4.1 – Project C – Cottonwood, Dry and Berenda Creek Arundo Eradication and Sand Removal

Budget Narrative

Assumption – if DWR makes awards in June 2011, this project can begin implementation immediately. In that case, it can be completed within a 48 month period. That includes three years of treatment, one year of sediment removal and subsequent monitoring.

ALL BUDGET ITEMS WILL BE INVOICED BY TASK, NOT SUBTASK

Task 1.1 – Invoice preparation and documentation is estimated to take an average of 5 hours a month for the 48 month period of the grant. Madera Irrigation District's will be doing the implementation work in house with the assistance of Consultants.

MID Engineering Department average salary with benefits is \$41.92/hour. The break down is average wages are \$30.88/hour and benefits are \$11.04/hour.

An estimate of \$110.00/hour for consultants was used. This was based off of current billing rates for Provost and Pritchard.

The value of \$75.96/hour was used. It is the average between the Consultant and MID Engineering hourly rates since both the consultant and MID will need to work on these items. It is expected that MID's Engineering Department will work on this task approximately 120 hours and the Consultants will work on this task approximately 120 hours.

Task 2.1 – Labor compliance plan will be created by subconsultant. From previous experience it is expected that the Labor Compliance Plan will cost approximately \$10,000, since there are 5 projects that will be encompassed by this plan MID is expecting its costs will be \$2,000.

Task 3.1 – Quarterly reports are estimated to take 20 hours each. There will be 15 quarterly report (remaining quarter will be included in final report.)

Task 3.2 - Annual reports are estimated to take 10 hours each and there should be 3 annual reports (the remaining annual report will be the final report). They will be more comprehensive but the information for the quarterly reports will already be compiled.

Task 3.3 - The Final report is estimated to take 40 hours, figuring in requests for clarification from DWR. All of the reporting tasks will be completed by the MID Engineering Department at a rate of \$41.92/hour.

Task 3.4 – It is estimated that Partnership meetings will occur once a quarter and will take approximately 4 hours for preparation and meeting attendance. The rate of \$75.96/hour was

used because both MID's Engineering Department and Consultants will have to attend these meetings. 128 hours was used based on 2 people for 4 hours meeting once a quarter.

Task 5 – Land Purchase/Easement –not applicable. MID has the right to maintain facilities that are used for MID water conveyance.

Task 8.1 –A Notice of Exemption will be prepared and filed on behalf of MID by Madera County.

Task 9.1 – The application for renewal of a 1602 permit takes less time than the initial permit but follow-up and negotiation is still required. MID will need to complete a report and compile the documents required for permit renewal. The estimated hours are therefore 60 for this task. Per MID's current DFG Permit, MID will have to compile documents from the last 5 years and write a report regarding previous activity. MID will then have to fill out the appropriate documentation for the renewal and could possibly have to negotiate with DFG on issues.

Task 9.2 – The applications for the 401 and 404 permits are substantial due to the fact that we will be dealing with two agencies, US Army Corps of Engineers and the Regional Water Quality Control Board. Negotiations, document preparation, and possibly meetings and site visits will be required. 120 hours are estimated for this work.

Task 9.3.1, 9.3.2 and 9.3.3 – In order to assure compliance with the 401 and 404 permits and for the benefit of all parties involved, an access agreement will be created between MID and the landowners adjacent to the creeks whose property will be affected by this project. This task is estimated to require 24 hours. Legal review of this document will require an additional 3 hours at a rate of \$224 per hour. Obtaining signed agreements with landowners is going to take approximately 24 hours. These hours are more than those estimated for Ash Slough due to the fact that MID will be dealing with 32 miles of stream and many more landowners.

Task 9.4 – Drafting the SWPPP for the SWQCB - This is a specialized task that will be contracted out. Estimated fees for this work are \$5,000 for the initial plan and \$4,000 over the life of the project for amendments.

Task 11.1.1 – According to estimates by MID's Operations and Maintenance staff and MID's Engineering staff, the costs for mulching one mile of creek is \$11,113. This cost assumes it will take a MID 2 man crew plus equipment 40 hours to do one mile of creek on both sides. The cost for spraying one mile of creek is \$24,320 per mile and the cost for cutting and daubing one mile of creek is \$4,382. This totals \$39,815 per mile of creek for Arundo eradication. In the first year of Arundo removal it is estimated that there is 17 miles of Arundo to remove in the 32 total miles of creek, refer to Arundo Location Maps, **Attachment 3.1, page X**. The total for Arundo removal in the first year is estimated to be \$676,855; refer to Attachment 4.3, page 3.

Task 11.1.2 – Assuming a 40% Arundo eradication success rate, the total miles of Arundo removal to occur in the second year is 10 miles. At a rate of \$39,815/mile, as described in Task 11.1.1 the total will be \$398,150.

Task 11.1.3 – Assuming a 40% Arundo eradication success rate, the total miles of Arundo removal to occur in the third year would be 6 miles. At a rate of \$39,815/mile, as described in Task 11.1.1 the total will be \$238,990.

Task 11.2 – Letters to adjacent landowners will be sent out notifying them of the Arundo eradication and sediment removal. It is estimated that this will take approximately 8 hours per year for four years. This includes the time to draft the letter, sending the letter out, and answering questions from landowners.

Task 11.3 – Sediment removal will be done in house by MID's Operations and Maintenance staff. It is estimated that it will take a crew of 2 men, excluding equipment operators, 20 hours to remove sediment from 1 mile of creek. The cost of \$16,104 includes the cost of a 2 man MID crew, equipment, and operator costs. The total cost of \$515,326 was used for 32 miles of creek; refer to Attachment 4.3, page 7.

Task 13.1.1 – The Arundo spraying contract will be overseen by MID's Engineering Department. This will include meetings with the MID Operations and Maintenance staff prior to work commencing, site visits to assure that proper techniques are being used, and a final inspection. This is estimated to take 60 hours per year, or 240 hours over the life of the project. These hours are more than those proposed for the Ash Slough project due to the fact that Ash Slough will be hiring contractors and MID will be utilizing in house staff so more oversight is necessary.

Task 13.1.2 – The sediment removal process will require MID Engineering Department's oversight to ensure sand is being removed from the proper places in the proper amounts. Removal activities will be scheduled and spot inspections will be done for each landowner. Inspections are estimated to take 60 hours per year this equals 240 hours for four years. These hours are more than those proposed for the Ash Slough project due to the fact that Ash Slough will be hiring contractors and MID will be utilizing in house staff so more oversight is necessary.

Task 13.2 – Data collection and monitoring oversight will be done by MID's Engineering Department and will include overseeing the activities of monitoring and inspections for the SWPPP, the 401/404 permits and the 1602 permit, as well as the monitoring of Arundo eradication effectiveness (kill rate on Arundo) and sediment removal. This will involve pre- and post-meetings with the monitors/inspectors, as well as preparation for these meetings and site inspections when appropriate. It is expected that this will take 90 hours per year, or a total of 360 hours.

Task 14.1.1 – Raptor and avian surveys are required by MID's DFG permit. An estimate was obtained by HT Harvey and Associates for \$5,700 per year for four years. Refer to Attachment 4.3, page 15.

Task 14.1.2 - The value of \$75.96/hour was used for conducting baseline studies. It is the average between the Consultant and MID Engineering hourly rates since both the consultant and MID will need to work on these items.

Baseline studies will include mapping existing Arundo in the field using a handheld Global Positioning System (GPS) and high quality aerial photos. This will be done before the project begins and each subsequent year to determine the success of the project. This information will be used with Geographic Information System (GIS) to map the existing Arundo locations.

MID will develop a photo documentation study. MID will set up photo monitoring locations along each creek. At distinct time intervals MID will photo document the creek to determine if the Arundo removal is successful and the effects on native vegetation and habitat. MID will map these location in GIS also.

MID has collected flood data on each of the three creeks, Cottonwood Creek, Dry Creek, and Berenda Creek, since 1966. MID collects flood data in the upper reaches near where it enters the District and in the lower reaches where it exits the District. MID will continue to collect this data and will create a database for data management.

MID will assess the amount of sediment in each creek that needs to be removed by field studies and observations.

It is estimated that the first year of baseline studies will take approximately 160 hours for field work and data management. The following years will take approximately 60 hours for each year (3 years) for a total of 340 hours.

14.2 – Monitoring and inspection for SWPPP – An annual report on the SWPPP is required each September, and a final report/notice of termination is required at the end of the project. Local consulting firms have estimated these costs as \$500 per annual report and \$1,000 for the final report. Three annual reports plus a final report equals total costs of \$2,500.

14.3 – Monitoring and inspection of the 401/404 permits will take approximately 40 hours per year per of the permit (3 years).

14.4.1 - Report on kill rate of Arundo. This report will be created by the MID's Engineering Department and Operations and Maintenance staff. It is estimated that this will take 24 hours each year to complete for 4 years.

14.4.2 - Report on cubic yards/tons of sediment removed – This report will be created by the MID's Engineering Department and Operations and Maintenance staff. It is estimated that this will take 8 hours each year to complete for 3 years.

Task 14.5.1-- Permit fee, Department of Fish and Game 1602 permit extension-- The permit fee for extension of an existing 1602 permit is \$224 according to the fee schedule published on the DFG website.

Task 14.5.2— The removal or disturbance of sand requires a 404 and 401 permit from the Regional Water Quality Control Board (RWQCB)/Army Corps of Engineers (ACOE). The 401 can cost up to \$40,000 per year depending on the area disturbed, \$2,752 per acre up to \$40,000. This permit will need to be obtained each year of sediment removal. It is anticipated that one creek will be done each year so the permit is needed for 3 years.

Task 14.6—MID is anticipating that additional surveys and requirements could be required when we renew our DFG and possibly 401/404 permits. Based on prior experience it is estimated that it may cost \$30,000 to perform these surveys.

Task 15 — An Implementation Contingency of 20% has been selected. Factors in this selection include the potential rise in price of herbicide chemicals, and labor costs over the 4 year period of the project. An additional unknown factor is the amount of monitoring that may be required by permits which have not already been secured. Monitoring and reporting costs for these permits can easily exceed \$40,000 per year. Additionally, MID is planning on using its own work force to accomplish these tasks. Since we are not contracting with a Contractor for a firm price we have additional fluctuations in cost for performing these activities.

ALL BUDGET ITEMS WILL BE INVOICED BY TASK, NOT SUBTASK

Table 7 - Project Budget

Proposal Title: Madera Region IRWM Implementation Grant

Project Title: Project C - Madera Irrigation District Arundo Eradication and Sand Removal

		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	\$43,508	\$2,000		\$45,508	96%
(b)	Land Purchase/Easement				\$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	\$10,248	\$9,000		\$19,248	53%
(d)	Construction/Implementation	\$516,670	\$1,313,895		\$1,830,565	28%
(e)	Environmental Compliance/ Mitigation/Enhancement				\$0	0%
(f)	Construction Administration	\$35,280			\$35,280	100%
(g)	Other Costs	\$10,080	\$201,350		\$211,430	5%
(h)	Construction/Implementation Contingency	\$ 103,334	\$262,779		\$366,113	28%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$719,120	\$1,789,024	\$0	\$2,508,144	29%

*List sources of funding: Use as much space as required.

All matching funds represent in-kind work performed by MID

Detailed Project Budget

Proposal Title: Madera Region IRWM Implementation Projects
Project Title: Project C - Madera Irrigation District Arundo Eradication and Sand Removal

Budget Note #	Budget Category/Task Number	Hours	Rate	(a) Non-State Share*	(b) Requested Grant Funding	(c) Other Grant Funds Being Used	(d) Total	(e) Task/ Category Subtotals	(f) % Funding Match
(a) Direct Project Administration Costs									
1.1	Preparation of invoices to Applicant	240	\$76	\$18,240			\$18,240		100%
Task 1 - Administration Subtotal				\$18,240			\$18,240		100%
2.1	Submission of County's Labor Compliance program to DWR			\$0	\$2,000		\$2,000		0%
Task 2 - Labor Compliance Program Subtotal					\$2,000		\$2,000		0%
3.1	Preparation and submission of quarterly project reports to Applicant	300	\$42	\$12,600			\$12,600		100%
3.2	Preparation and submission of annual project reports to Applicant	30	\$42	\$1,260			\$1,260		100%
3.3	Preparation and submission of final project report to Applicant	40	\$42	\$1,680			\$1,680		100%
3.4	Participate in Partnership Meetings	128	\$76	\$9,728			\$9,728		100%
Task 3 - Reporting Subtotal				\$25,268			\$25,268		100%
4	Development of Financing - Not Applicable			\$0			\$0		0%
Task 4 - Development of Financing Subtotal				\$0			\$0		0%
(a) Direct Project Administration Costs Total				\$43,508	\$2,000		\$45,508		96%
(b) Land Purchase/Easement									
5	Land Purchase/Easement - not applicable			\$0			\$0		0%
Task 5 - Land Purchase/ Easement Subtotal				\$0			\$0		0%
(c) Planning/Design/Engineering/ Environmental Documentation									
6	Assessment and Evaluation – not applicable			\$0			\$0		0%
Task 6 - Assessment and Evaluation Subtotal				\$0			\$0		0%
7	Final Design, Deliverables: – not applicable			\$0			\$0		0%
Task 7 - Final Design Subtotal				\$0			\$0		0%
8.1	Preparation and filing of Notice of Exemption-County will do for MID			\$0			\$0		0%
Task 8 Environmental Documentation Subtotal				\$0			\$0		0%
9.1	Create application for five year renewal of 1602 Stream Bed Alteration Permit	60	\$42	\$2,520			\$2,520		100%
9.2	Create application for 401 and 404 permits	120	\$42	\$5,040			\$5,040		100%
9.3.1	Draft Landowner Access Agreement for sediment removal work	24	\$42	\$1,008			\$1,008		100%
9.3.2	Legal review of Access Agreement and comment	3	\$224	\$672			\$672		0%
9.3.3	Obtain signed Access Agreements from landowners			\$1,008			\$1,008		100%
9.4	Draft Stormwater Pollution Protection Plan for SWQCB	24	\$42	\$0	\$9,000		\$9,000		0%
Task 9 - Permitting Subtotal				\$10,248	\$9,000		\$19,248		0%
(c) Planning/Design/Engineering/ Environmental Documentation Total				\$10,248	\$9,000		\$19,248		53%

Detailed Project Budget

Proposal Title: Madera Region IRWM Implementation Projects
Project Title: Project C - Madera Irrigation District Arundo Eradication and Sand Removal

Budget Note #	Budget Category/Task Number	Hours	Rate	(a) Non-State Share*	(b) Requested Funding	(c) Other Grant Funds Being Used	(d) Total	(e) Task/ Category Subtotals	(f) % Funding Match
(d) Implementation									
	10 Draft Implementation Contract-not applicable			\$0	\$0		\$0		0%
	Task 10 - Implementation Contracting Subtotal			\$0	\$676,855		\$676,855	\$0	0%
	11.1.1 First year Arundo eradication--mulch, spray, and daub			\$0	\$398,150		\$398,150		0%
	11.1.2 Second year Arundo eradication--mulch, spray, and daub			\$0	\$238,890		\$238,890		0%
	11.1.3 Third year Arundo eradication--mulch, spray, and daub			\$0	\$1,344		\$1,344		100%
	11.2 Notices sent to adjacent landowners	32	\$42	\$515,326			\$515,326		100%
	11.3 Sediment removal			\$515,326			\$515,326		100%
	Task 11 - Implementation Subtotal			\$516,670	\$1,313,895		\$1,830,565		28%
	(d) Implementation Total			\$516,670	\$1,313,895		\$1,830,565		28%
(e) Environmental Compliance/Mitigation/Enhancement									
	Task 12 - Environmental Compliance/Mitigation Subtotal			\$0	\$0		\$0		0%
	(e) Environmental Compliance/Mitigation/Enhancement Total			\$0	\$0		\$0		0%
(f) Project Management/Administration									
	13.1.1 Oversight of Arundo spraying and mulching activities	240	\$42	\$10,080			\$10,080		100%
	13.1.2 Oversight of Sediment removal	240	\$42	\$10,080			\$10,080		100%
	13.2 Data Collection and Monitoring Oversight	360	\$42	\$15,120			\$15,120		100%
	Task 13 - Project Management and Oversight Subtotal			\$35,280			\$35,280		100%
	(f) Project Management/Administration Total			\$35,280			\$35,280		100%
(g) Other Costs									
	14.1.1 Raptor and Avian surveys and monitoring			\$0	\$22,800		\$22,800		0%
	14.1.2 Conduct baseline studies	340	\$76	\$0	\$25,826		\$25,826		0%
	14.2 Monitoring and inspection for SWPPP				\$2,500		\$2,500		0%
	14.3 Monitoring and inspection for ACE 401/404 permits	120	\$42	\$5,040			\$5,040		100%
	14.4.1 Monitoring and Report on the kill rate on Arundo	96	\$42	\$4,032			\$4,032		100%
	14.4.2 Report on cubic yards/tons of sediment removed	24	\$42	\$1,008			\$1,008		100%
	14.5.1 DFG Permit Renewal Fees				\$224		\$224		0%
	14.5.2 401 and 404 Permit Fees				\$120,000		\$120,000		0%
	14.6 Contingency for future surveys that may be required at permit renewal				\$30,000		\$30,000		0%
	Task 14- Other Cost Subtotal			\$10,080	\$201,350		\$211,430		5%
	(g) Other Costs			\$10,080	\$201,350		\$211,430		5%
(h) Implementation Contingency									
	15 Implementation Contingency (20%)			\$103,334	\$262,779		\$366,113		28%
	(h) Implementation Contingency Total			\$103,334	\$262,779		\$366,113		28%
	(i) Grand Total (Sum rows (a) through (h) for each column)			\$719,120	\$1,789,024		\$2,508,144		29%

NOTE--All budget items will be invoiced by Task, not subtask

**Attachment 4.1, Project D – Root Creek In-Lieu Groundwater Recharge
Project**

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Attachment 4.1 – Project D – Root Creek In-Lieu Groundwater Recharge

Budget Notes

The budget details in this attachment are organized into a format provided with the grant Proposal Solicitation Package. A detailed breakdown of all tasks and construction costs described in the Work Plan is included in the table at the end of this attachment. The costs associated are reasonable as they are based primarily from actual costs associated with similar tasks for other canal structure and pipeline construction projects. All construction costs are based on local prevailing wage rates.

Also included is supporting information for the budget prepared, including:

- Attachment 4.1, page 48 – Detailed Budget of All Tasks in the Work plan
- Attachment 4.4, page 3 – Detail of Man-hours for Planning/Design/Engineering/Environmental Documentation
- Attachment 4.4, page 7 – Opinion of Probable Construction Costs

Below is a discussion of the budget for each of the work tasks included.

Direct Project Administration Costs

Direct Project Administration Costs include tasks 1, 2, 3 and 4.

RCWD staff will prepare all of the required reporting information. The budget for this task is for administrative tasks including preparation of the quarterly project reports, draft and final project summary report.

The budget also includes monies for the engineering consultant for conference calls, meetings, progress reports, sub-consultant management, and overall project coordination. This includes a nominal budget for printing, communications and travel expenses.

Land Purchase/Easement

Land Purchase/Easement Costs include task 5.

RCWD has already secured the property, through easements with the property owners. All easements have been made with property owners that will receive benefits from this project in order to avoid costs. All easements will be tied to the property in the event of a sale.

Planning/Design/Engineering/Environmental Documentation

Planning/Design/Engineering/Environmental Documentation includes tasks 6, 7, 8, and 9.

The fees for planning, design, engineering and environmental documentation are based on estimated tasks and subtasks. These estimates were created largely based on the efforts to plan and design similar projects.

Construction/Implementation

Construction and implementation fees are estimates based on similar projects' expenses.

Environmental Compliance/Mitigation/Enhancement

Environmental Compliance /Mitigation/Enhancement Costs includes task 12.

There is no cost associated to the project under this summary cost.

Construction Administration

Construction administration costs are based on estimated requirements needed to manage the project, observe construction and administer the construction contract. These are based on the experience from similar projects.

Other Costs

Other costs include legal fees to assist with permitting, construction contracts, and easement processing. Also included are the costs of various permits and construction and initial project monitoring and reporting.

Construction Implementation Contingency

The construction contingency is estimated to be 15%. The contingencies account for uncertainty in designs, construction costs, and allowance for neglected items.

Matching Funds

The total project cost is estimated to be \$5,500,000. RCWD is seeking grant funds of \$4,125,000 and will provide funding for the remaining \$1,375,000. RCWD will be funding 25% of the project costs.

Project Tracking and Invoicing

Project costs will be tracked and invoiced according to the main project tasks, and not according to sub-task.

Table 7 - Project Budget

Proposal Title: Madera Region IRWM Implementation Grant

Project Title: Project D - Root Creek In-Lieu Groundwater Recharge

		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	\$17,500	\$2,500	\$0	\$20,000	88%
(b)	Land Purchase/Easement	\$0	\$0	\$0	\$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	\$50,760	\$50,000	\$0	\$100,760	50%
(d)	Construction/Implementation	\$199,740	\$4,072,500	\$0	\$4,272,240	5%
(e)	Environmental Compliance/ Mitigation/Enhancement	\$5,000	\$0	\$0	\$5,000	100%
(f)	Construction Administration	\$200,000	\$0	\$0	\$200,000	100%
(g)	Other Costs	\$77,000	\$0	\$0	\$77,000	100%
(h)	Construction/Implementation Contingency	\$825,000	\$0	\$0	\$825,000	100%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$1,375,000	\$4,125,000	\$0	\$5,500,000	25%

***List sources of funding:** Root Creek Water District has signed agreements with the landowners served by the project to provide the cost share either through a direct cash payment or assessments applied to their lands.

Detailed Project Budget

Proposal Title: Madera Region IRWM Implementation Projects
Project Title: Project D - Root Creek In-Lieu Groundwater Recharge

Task No.	Task Description	Other State Funds	Non-State Share (Funding Match)	Requested Grant Funding	Total	% Funding Match
a	Direct Project Administration Costs	\$ -	\$ 17,500.00	\$ 2,500.00	\$ 20,000.00	88%
1	Project Administration		\$ 2,500.00	\$ -	\$ 2,500.00	100%
2	Labor Compliance Program		\$ 7,500.00	\$ -	\$ 7,500.00	100%
3	Reporting		\$ 7,500.00	\$ -	\$ 7,500.00	100%
4	Financing Development		\$ -	\$ 2,500.00	\$ 2,500.00	0%
b	Land Purchase/Easement	\$ -	\$ -	\$ -	\$ -	0%
5	Land Acquisition/Easement		\$ -	\$ -	\$ -	0%
c	Planning/Design/Engineering/Environmental Documentation	\$ -	\$ 50,760.00	\$ 50,000.00	\$ 100,760.00	50%
6	Assessment and Evaluation, Deliverable, and Technical Studies	\$ -	\$ -	\$ -	\$ -	0%
7	Final Design		\$ -	\$ 50,000.00	\$ 50,000.00	0%
8	Environmental Documentation		\$ 15,000.00	\$ -	\$ 15,000.00	100%
9	Permitting		\$ 35,760.00	\$ -	\$ 35,760.00	100%
d	Construction/Implementation	\$ -	\$ 199,740.00	\$ 4,072,500.00	\$ 4,272,240.00	5%
10	Construction Contracting		\$ 20,000.00	\$ -	\$ 20,000.00	100%
11	Project Construction		\$ 179,740.00	\$ 4,072,500.00	\$ 4,252,240.00	4%
11.1	Project Mobilization/On-Going Duties		\$ 65,000.00	\$ -	\$ 65,000.00	100%
11.2	MID/RCWD Turnout Structure		\$ 79,740.00	\$ 126,860.00	\$ 206,600.00	39%
11.3	48 inch pipeline installation		\$ -	\$ 2,974,560.00	\$ 2,974,560.00	0%
11.4	Lateral construction and installation		\$ -	\$ 926,080.00	\$ 926,080.00	0%
11.5	Connection to Existing Pump Stations		\$ -	\$ 45,000.00	\$ 45,000.00	0%
11.6	Facility Testing		\$ 10,000.00	\$ -	\$ 10,000.00	100%
11.7	Project Site Cleanup/De-Mobilization		\$ 25,000.00	\$ -	\$ 25,000.00	100%
e	Environmental Compliance/Mitigation/Enhancement	\$ -	\$ 5,000.00	\$ -	\$ 5,000.00	100%
12	Environmental Compliance/ Mitigation/Enhancement		\$ 5,000.00	\$ -	\$ 5,000.00	100%
f	Construction Administration	\$ -	\$ 200,000.00	\$ -	\$ 200,000.00	100%
13	Construction Observation		\$ 200,000.00	\$ -	\$ 200,000.00	100%
13.1	Construction Administration		\$ 150,000.00	\$ -	\$ 150,000.00	100%
13.2	Construction Observation and Inspection		\$ 38,000.00	\$ -	\$ 38,000.00	100%
13.3	Record Drawings		\$ 12,000.00	\$ -	\$ 12,000.00	100%
g	Other	\$ -	\$ 77,000.00	\$ -	\$ 77,000.00	100%
14	Other Costs		\$ 77,000.00	\$ -	\$ 77,000.00	100%
14.1	Legal fees		\$ 60,000.00	\$ -	\$ 60,000.00	100%
14.2	Stormwater Pollution Prevention Plan (SWPPP) annual fees ¹		\$ 2,000.00	\$ -	\$ 2,000.00	100%
14.3	RCWD monitoring and assessment reporting during construction & initial water diversion		\$ 15,000.00	\$ -	\$ 15,000.00	100%
h	Construction/Implementation Contingency (15%)	\$ -	\$ 825,000.00	\$ -	\$ 825,000.00	100%
	TOTAL	\$ -	\$ 1,375,000.00	\$ 4,125,000.00	\$ 5,500,000.00	25%

Notes:
1. Approximately 36 acres of disturbed area

**Attachment 4.1, Project E – Sierra National Forest Fuels Reduction
Project**

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Attachment 4.1 – Project E – Sierra National Forest Fuels Reduction

Budget Notes

Assumption – if DWR makes awards in June, 2011, this project can begin implementation within 2-3 months. In that case, it can be completed within a 49 month period. That includes three years of treatment and subsequent BMP monitoring. Implementation of the project would be complete within 42 months; however the last treated area must go through at least one winter for the BMP effectiveness monitoring to be completed.

Note on units used: Most of the tasks involved with vegetation management projects are a combination of office and field work. The time needed to complete a task is highly dependent on the site location, current weather and ground conditions, personnel and machinery increases. The Forest Service appropriated budget is tied to on-the-ground targets (i.e. acres, stream miles, and road miles) and not to personnel hours or wages. The nature of Forest Service work and the workforce makes it more efficient and accurate to track and estimate on a pre-acre basis when field work is involved. Therefore many of the task estimates are derived on a per-acre basis from the experience of personnel in that discipline. Wherever possible, the government Grade Scale (GS) level of the employees normally involved in tasks is given but tasks could be performed by employees of different GS levels in the absence of the responsible employee.

Budget Category a

Task 1 – Invoice preparation is expected to be done on a quarterly basis (16 quarters). Preparing invoices is estimated to take 5 hours each by a Grade Scale (GS)-11 employee. At an average rate of \$40/hr. This rate includes salary, benefits, and personnel administration.

Task 2 – Labor compliance documentation is expected to take 8 hours, including discussion to verify federal compliance versus state compliance. This work would be done by a GS-11 at the average rate of \$40/hr.

Task 3 – Quarterly and annual reports are expected to take 8 and 16 hours, respectively, by a GS-11 with an average rate of \$40/hr.

Budget Category c

Tasks 7 and 8 – Initial to final design of vegetation management projects on the Sierra National Forest are done through the NEPA planning process. This is done by an interdisciplinary team of specialist during the development of the Purpose and Need, Proposed Action, and Scoping documents for NEPA. This requires a combination of office and field work, including data analysis, meetings, field investigations of existing conditions as they relate to silviculture, fuels, wildlife, hydrology, soils, aquatics, archeology/heritage, and botany.

Federal appropriated dollars to the Forest Service are tied to targets that are measured in ground units (i.e. acres, road miles, stream miles, etc), and are not necessarily tracked on a per hour basis for a given project. Therefore cost estimates for Tasks 7 and 8.2 were determined on a per acre basis based on the cost to the Forest Service if we were to contract out the NEPA analyses and documentation. In 2010 the SNF contracted with TEAMS Enterprise Unit to provide NEPA services on the KEOLA project on the High Sierra Ranger District. This project was of similar size (1000 acres) and scope as the Grey's and Kelty projects. The work order for TEAMS did not include silviculture and heritage resource disciplines; nor did it include consultation with US Fish and Wildlife Service (USFWS) or the State Historical Preservation Office (SHPO), therefore these costs were added. The costs and work order for the KEOLA project is included in Attachment 4.5, page 3. The cost estimates for the Grey's and Kelty projects were calculated as follows:

\$165,000	-	cost to the USFS for the Keola Contract
\$ 5,680	-	TEAMS fee
+ \$ 20,000	-	Silviculture and Heritage
- \$ 10,000	-	estimated TEAMS travel, lodging, and meals cost (\$2,000 per field specialist and IDT Leader)
+ \$ 2,100	-	estimated consultation cost (USFWS and SHPO, 3-4 days for GS-11)
<hr/>		
= \$182,000	-	estimated cost for a 1,000 acre project

Based on experience it was estimated that developing the proposed action and scoping (Task 7) accounted for 30% of the total cost and 70% of the total cost went toward specialist review, report writing, and responding to public comments. Therefore Task 7 was estimated to be \$55/acre and Task 8.2 to be \$127/acre. This is considered a conservative estimate since project size has a tendency to grow as it is developed. In addition, the KEOLA project is expected to produce 1 million board-feet of timber whereas the Grey's and Kelty are expected to produce 3-4 million board-feet each and will require more time by specialists.

Task 8.1 was estimated to take 40 hours by a GS-11 at a rate of \$40/hr. This was based on a 10 hour time to provide CEQA for the first of seven areas already covered by NEPA. Once the required documentation and procedures are learned, the remaining 6 areas are estimated to take 5 hours each.

Budget Category d

Task 10.1 – Contract preparation and advertisement is estimated to be \$30/acre for a GS11 (\$320/day), GS 9 (\$307/day), and GS7 (\$256/day) including pay, benefits, vehicle costs, flagging, and miscellaneous field supplies based on the experience of the Bass Lake Ranger District Silviculturist.

Task 10.2 – Rating and awarding contracts are estimated to take a GS-11 8 hours per contract at \$40/hour.

Task 11.1 – 2009 contracts for mastication ranged from \$399 to \$543/acre (see Attachment 4.5, page 11), averaging \$473/acre

Task 11.2 - Hand thinning will be performed by Forest Service personnel. The \$210/acre costs per include:

\$185/acre for 9 person crew (1 GS-6 perm (\$186/day), 2 GS-5s (\$123/day each), 2 GS-4s (\$113/day each), and 4 GS-3s (\$101/day each) to thin 5-7 acres/day.

+\$25/acre for saw gas & bar oil, saw replacement and repairs, vehicle use and repairs.

Task 11.3 - Tractor piling costs include a WG10 Dozer Operator at a rate of \$184/day and a GS-4 Swamper at a rate of \$113/day, dozer and swamper vehicle/trailer use-rate and repair costs. The per-acre cost depends on the number of acres that can be piled in one day. This is extremely variable based on terrain and other site conditions. The per-acre cost was determined by the Bass Lake Ranger District Silviculturist based on long-term experience with piling projects.

Task 11.4 - Pile burning costs include rates for a GS-5 (\$123/day), GS-6 (\$186/day), and GS-7 (\$256/day), diesel and gas mix, drip torch repair, and vehicle costs for ~5-7 acres/day.

Budget Category e

Task 12.1 - It is estimated that BMPEP monitoring will be done in 4 days annually (2011-2015), 2 for implementation monitoring and 2 for effectiveness monitoring. This includes the rate for GS-11 (\$40/hr), vehicle costs, and entering data into the BMPEP database.

Budget Category f

Task 13 - Project and program management is performed by various USFS personnel, both in the office and in the field. The work leaders are typically the District Fuels Officer or the District Silviculturist, and the crews consist of Assistant Fuels Officers, Culturists, Fuels Technicians, Contracting Officer Representatives (CORs) and Inspectors. Depending on the complexity of the task and availability of personnel, any of these employees could be responsible for parts or all of the following sub-tasks. Costs are estimated were made by senior personnel involved. These estimates are based on the typical number and GS level of personnel involved, number of acres usually completed in a year, and the annual cost to complete those acres.

Task 13.1 - Contract management for mastication - \$70 per acre for GS-11 (\$324/day), GS-9 (\$307/day), GS-7 (\$256/day), includes pay, benefits, vehicle costs, and miscellaneous supplies. This is approximately 15% of contract cost, a typical figure used for many Forest Service contracts.

Tasks 13.2 - Program Management for mastication - General supervision and human resource management of USFS personnel involved with the mastication project (GS-11 & GS-9). Based on experience, this is estimated to be 6% of mastication contract costs or \$28/acre.

Tasks 13.3 - Project management for hand thinning - \$35/acre includes a GS-9 and GS-7, vehicle costs, and miscellaneous field supplies. This estimate is based on the experience of the Bass Lake Ranger District Silviculturist and Fuels Officer

Task 13.4 - Program management for hand thinning - \$37/acre includes a GS-11 and GS-9. This estimate is based on the experience of the Bass Lake Ranger District Silviculturist and Fuels Officer

Task 13.5 - Project management for tractor piling – \$30/acre for a GS-9. The per-acre cost was determined by the Bass Lake Ranger District Silviculturist based on long-term experience with piling projects.

Task 13.6 - Program management for tractor piling - \$7/acre based on the experience of the Bass Lake Ranger District Silviculturist and Fuels Officer.

Task 13.7 and 13.8 - Project and Program management for pile burning – Project and program management typically cost 10% of overall burning costs. Therefore 5% for each was used to estimate a cost of \$5/acre.

Budget Category g

Task 14 - Other Costs – Costs for supplies, printing, publishing legal notices and mailing scoping and other documents related to the NEPA/CEQA process were based on the TEAMS contract for the KEOLA project discussed in Tasks 7 and 8 above.

Contingency – A 10% contingency has been selected. Factors in this selection include the potential rise in price gasoline and labor over the next 3 – 4. The percentage was only applied to implementation costs for acres to be treated in 2011 through 2014.

Table 7 - Project Budget

Proposal Title: Madera Region IRWM Implementation Grant

Project Title: Project E - Sierra National Forest Fuels Reduction

		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	\$12,960			\$12,960	100%
(b)	Land Purchase/Easement				\$0	0%
(c)	Planning/Design/Engineering/ Environmental Documentation	\$365,600			\$365,600	100%
(d)	Construction/Implementation	\$781,465	\$1,284,900		\$2,066,365	38%
(e)	Environmental Compliance/ Mitigation/Enhancement	\$4,440			\$4,440	100%
(f)	Construction Administration	\$382,300	\$65,250		\$447,550	85%
(g)	Other Costs	\$930			\$930	100%
(h)	Construction/Implementation Contingency		\$162,418		\$162,418	0%
(i)	Grand Total (Sum rows (a) through (h) for each column)	\$1,547,695	\$1,512,568	\$0	\$3,060,263	51%

*List sources of funding: Use as much space as required.

All matching funds are from federally appropriated dollars

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Detailed Project Budget

Proposal Title: Madera Region IRWM Implementation Projects
Project Title: Project E - Sierra National Forest Fuels Reduction
Detailed Budget

Budget Category/Task Number	Unit	Unit #	Cost/Unit	(a) Non-State Share*	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) Task/ Category Subtotals	(f) % Funding Match
(a) Direct Project Administration Costs									
Task 1 - Administration									
1.1 Prepare invoices to Applicant	hours	80	\$ 40	\$ 3,200	\$ -	\$ -	\$ 3,200	\$ 3,200	100%
Task 1 - Subtotal				\$ 3,200	\$ -	\$ -	\$ 3,200	\$ 3,200	100%
Task 2 - Labor Compliance Program									
2.1 Submission of County's Labor Compliance program to DWR	hours	8	\$ 40	\$ 320	\$ -	\$ -	\$ 320	\$ 320	100%
Task 2 - Subtotal				\$ 320	\$ -	\$ -	\$ 320	\$ 320	100%
Task 3 - Reporting									
3.1 Prepare and submit quarterly project reports to Applicant	hours	128	\$ 40	\$ 5,120	\$ -	\$ -	\$ 5,120	\$ -	0%
3.2 Prepare and submit annual project reports to Applicant	hours	24	\$ 40	\$ 960	\$ -	\$ -	\$ 960	\$ -	100%
3.3 Prepare and submit final project report to Applicant	hours	16	\$ 40	\$ 640	\$ -	\$ -	\$ 640	\$ -	100%
3.4 Quarterly meeting of project proponents and applicant	hours	68	\$ 40	\$ 2,720	\$ -	\$ -	\$ 2,720	\$ -	100%
Task 3 - Subtotal				\$ 9,440	\$ -	\$ -	\$ 9,440	\$ 9,440	100%
Task 4 - Development of Financing - not applicable									
Task 4 - Subtotal									
(a) Direct Project Administration Subtotal				\$ 12,960	\$ -	\$ -	\$ 12,960	\$ 12,960	100%
(b) Land Purchase/Easement									
Task 5 - Land Purchase/ Easement - not applicable									
Task 5 - Subtotal									
(b) Land Purchase/Easement Subtotal				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(c) Planning/Design/Engineering/ Environmental Documentation									
Task 6 - Assessment and Evaluation - not applicable									
Task 6 - Subtotal									
Task 7 - Final Design									
7.1 Develop Proposed Action and Scoping	acres	2000	\$ 55	\$ 110,000	\$ -	\$ -	\$ 110,000	\$ 110,000	100%
Task 7 - Subtotal				\$ 110,000	\$ -	\$ -	\$ 110,000	\$ 110,000	100%
Task 8 Environmental Documentation									
8.1 Provide CEQA compliance information projects with existing NEPA	hours	40	\$ 40	\$ 1,600	\$ -	\$ -	\$ 1,600	\$ -	100%
8.2 Preparation of NEPA EA/EIS/CEQA documents - Grey's and Kelty	acres	2000	\$ 127	\$ 254,000	\$ -	\$ -	\$ 254,000	\$ -	100%
Task 8 Subtotal				\$ 255,600	\$ -	\$ -	\$ 255,600	\$ 255,600	100%
(c) Planning/Design/Engineering/Environmental Documentation Subtotal				\$ 365,600	\$ -	\$ -	\$ 365,600	\$ 365,600	100%

Detailed Project Budget

Proposal Title: Madera Region IRWM Implementation Projects
Project Title: Project E - Sierra National Forest Fuels Reduction
Detailed Budget

Budget Category/Task Number		Unit	Unit #	Cost/Unit	(a) Non-State Share*	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) Task/ Category Subtotals	(f) % Funding Match
(d) Implementation										
Task 9 - Permitting - not applicable										
Task 9 - Subtotal										
Task 10 - Implementation Contracting										
10.1 Prepare and advertise contract(s)	acres	2515	\$	30	\$	75,450	\$	-	\$	75,450
10.2 Award contract(s)	hours	48	\$	40	\$	1,920	\$	-	\$	1,920
Task 10 - Subtotal					\$	77,370	\$	-	\$	77,370
Task 11 - Implementation										
11.1 Masticate stands	acres	2515	\$	473	\$	338,195	\$	851,400	\$	1,189,595
11.2 Hand thin plantations	acres	2140	\$	210	\$	165,900	\$	283,500	\$	449,400
11.3 Tractor pile slash	acres	1000	\$	250	\$	100,000	\$	150,000	\$	250,000
11.4 Burn piled slash	acres	1000	\$	100	\$	100,000	\$	-	\$	100,000
Task 11 - Subtotal					\$	704,095	\$	1,284,900	\$	1,988,995
(d) Implementation Subtotal					\$	781,465	\$	1,284,900	\$	2,066,365
(e) Environmental Compliance/Mitigation/Enhancement										
Task 12 - Environmental Compliance/Mitigation										
12.1 BMP monitoring (BMPEP) and other monitoring required by NEPA/CEQ	hours	120	\$	37	\$	4,440	\$	-	\$	4,440
Task 12 - Subtotal					\$	4,440	\$	-	\$	4,440
(e) Environmental Compliance/Mitigation Subtotal					\$	4,440	\$	-	\$	4,440
(f) Project Management/Administration										
Task 13 - Project Management and Oversight										
13.1 Mastication Contract Management	acres	2515	\$	70	\$	176,050	\$	-	\$	176,050
13.2 Mastication Program Management	acres	2515	\$	28	\$	70,420	\$	-	\$	70,420
13.3 Hand Thinning Program Management	acres	2140	\$	35	\$	27,650	\$	47,250	\$	74,900
13.4 Hand Thinning Program Management	acres	2140	\$	37	\$	79,180	\$	-	\$	79,180
13.5 Tractor Piling Program Management	acres	1000	\$	30	\$	12,000	\$	18,000	\$	30,000
13.6 Tractor Piling Program Management	acres	1000	\$	7	\$	7,000	\$	-	\$	7,000
13.7 Burning Program Management	acres	1000	\$	5	\$	5,000	\$	0	\$	5,000
13.8 Burning Program Management	acres	1000	\$	5	\$	5,000	\$	-	\$	5,000
Task 13 - Subtotal					\$	382,300	\$	65,250	\$	447,550
(f) Project Management/Administration Subtotal					\$	382,300	\$	65,250	\$	447,550
(g) Other Costs										
Supplies, printing, mailings, legal notices for NEPA/CEQA	NEPA/CEQA	2	\$	465	\$	930	\$	-	\$	930
Task 14 - Other Costs Subtotal					\$	930	\$	-	\$	930
(g) Other Costs Subtotal					\$	930	\$	-	\$	930
(h) Implementation Contingency (10% of category d from 2011-2015)	10%				\$	-	\$	162,418	\$	162,418
(i) Grand Total (Sum rows (a) through (h) for each column)					\$	1,547,695	\$	1,512,568	\$	3,060,263

* All matching funds are from federally appropriated dollars